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# EPIDEMIOLOGICAL BULLETIN

## SRI LANKA

*Second quarter*  
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## EPIDEMIOLOGY UNIT

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Epidemiology Unit  
Ministry of Health



## 1. POLIOMYELITIS

Twenty-five patients with acute flaccid paralysis were notified to the Epidemiology Unit during the 2<sup>nd</sup> quarter of 2023, while the expected number for the quarter was 28 (as per the annual surveillance target of 2 AFP patients:100,000 under 15-year population). Therefore, the non-polio AFP rate among under 15-year population for the second quarter of 2023 was 1.8:100,000.

### Notification of AFP patients from hospitals

Upon detection, all AFP patients should immediately be reported to the Epidemiology Unit and to the Regional Epidemiologist of the respective district of the patient's residence, in addition to notifying to the MOH of the patient's residence.

The highest number of AFP patients for quarter was notified from the Lady Ridgeway Hospital, Colombo, which has reported a total of seven patients, followed by the Teaching Hospital Karapitiya (n=4), and Sirimavo Bandaranaike Specialized Children's Hospital (n=3).

**Table 01. Distribution of reported AFP patients by hospital, 2<sup>nd</sup> quarter 2023**

Hospital	Number of patients reported
Lady Ridgeway Hospital for Children	07
Teaching Hospital Karapitiya	04
Sirimavo Bandaranaike Specialized Children's Hospital	03
Teaching Hospital Peradeniya	02
Colombo South teaching Hospital (Kalubowila)	02
Colombo North teaching Hospital (Ragama)	02
Teaching Hospital Anuradhapura	01
National Hospital of Sri Lanka	01
National Hospital Kandy	01
District General Hospital Trincomalee	01
District General Hospital Nuwara-Eliya	01
<b>Total</b>	<b>25</b>

### Distribution of AFP cases according to provinces, districts & MOH Areas

Gampaha district has reported the highest number of patients (n=4), while Colombo, Galle and Kandy districts have reported three patients each. The distribution of AFP patients according to the province, district and MOH area is given in table 2.

**Table 02. Distribution of AFP patients by district & MOH area**

Province	District	MOH Area	Number of AFP patients	
Western	Colombo	Kaduwela	1	
		Kahathuduwa	1	
		Dehiwala	1	
	Gampaha	Dompe	1	
		Gampaha	2	
		Mahara	1	
		Kalutara	Horana	1
	Central	Kandy	Doluwa	1
			Pathadumbara	1
Hasalaka			1	
Matale		Dambulla	1	
		Southern	Galle	1
			Baddegama	1
Yakkalamulla			1	
Matara		Malimboda	1	
		Hambantota	Katuwana	1
	Trincomalee		Kinniya	1
North_Western	Kurunegala	Panduwassuware - West	1	
		North_Central	Anuradhapura	Rambewa
Uva	Badulla		Welimada	1
Sabaragamuwa	Kegalle	Bulathkohupitiya	1	
		Aranayaka	1	
		Rathnapura	Niwithigala	1
		Kuruvita	1	
<b>Total</b>			<b>25</b>	

### Seasonal distribution of AFP patients

A significant seasonal variation in reporting AFP patients was not observed during the period.

### Age and sex distribution of AFP patients

The proportion of males was slightly higher than females, with 13 out of 25 patients being males (52%). The age and sex distribution are given in Table 3.

**Table 03. Distribution of AFP patients by Age and Sex: 2nd quarter 2023**

Age Group	Sex		Total	%
	Male	Female		
<1 year old	01	0	00	4.00
1-4 year old	03	03	06	24.00
5-9 year old	05	06	11	44.00
10-15 year	04	03	07	28.00
<b>Total</b>	<b>13</b>	<b>12</b>	<b>25</b>	<b>100.0</b>

### Final diagnoses of AFP cases

For majority of patients, the final diagnosis was Guillain-Barre Syndrome (n=21, 84%), while Acute Disseminated Encephalomyelitis and Immune Mediated Encephalomyelioradiculitis was diagnosed in one patient each. A definitive diagnosis has not been reached for two patients.

### Laboratory exclusion of poliomyelitis in AFP patients

The exclusion of poliovirus requires two stool samples collected within 14 days of the onset of the symptoms. These samples should be sent to the virology laboratory at the Medical Research Institute (WHO regional reference laboratory for poliomyelitis) for the exclusion of poliovirus. According to WHO criteria these samples should be collected in a timely manner and be in 'good condition' upon receipt to the laboratory. A sample is determined to be in 'good condition' if it fulfills the following criteria: available in correct quantity (8 - 10g), sent in a leak proof container with no evidence of spillage or leakage, and presence of ice in the container on receipt to the lab. In order for the samples to be considered timely, the two samples should be collected within 14 days of onset of paralysis and the two samples should be collected 24 hours apart. Accordingly, in the majority of patients both stool samples had been collected on time and sent in 'good condition' to the MRI for polio virology (n=18, 72%).

### Sentinel site monitoring

Any hospital where the services of a Consultant Paediatrician is available is considered a sentinel site for AFP surveillance. Currently, a total of 104 hospitals function as sentinel sites. These hospitals send a weekly report of all AFP, measles, rubella, CRS patients reported from the hospital for the given week, including zero reporting. This is considered a complementary measure to the routine surveillance.

## 2. MEASLES –2ND QUARTER 2023

Sixty-five (65) fever and maculopapular rash patients suspected of measles and rubella were reported which were compatible with the clinical case definition of "fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis". The first case of the current Measles outbreak was reported in May 2023. A total of 26 measles-positive cases were identified during the 2<sup>nd</sup> quarter of 2023.

**Table 04. Number of Fever rash cases tested for Measles: 2<sup>nd</sup> Quarter 2023**

District	cases	Measles positive	District	cases	Measles positive
Colombo	25	19	Batticaloa	0	0
Gampaha	5	1	Ampara	0	0
Kalutara	2	0	Trincomalee	0	0
Kandy	6	1	Kurunegala	2	0
Mannar	1	0	Puttalam	0	0
Kalmunai	5	0	Anuradhapura	0	0
Galle	1	0	Polonnaruwa	1	0
Hambantota	0	0	Badulla	2	0
Matara	1	0	Moneragala	0	0
Jaffna	6	5	Rathnapura	2	0
Vavuniya	0	0	Kegalle	2	0
Kilinochchi	0	0	Nuwaraeliya	3	0
Matale	1	0	Mullativu	0	0

Western Province reported the highest number of fever rash suspected cases for measles and rubella (32). Colombo district reported the highest number of Measles positive cases (19).

Laboratory investigations of 63 fever and maculopapular rash patients suspected of Measles or Rubella were carried out in the WHO-accredited virology Laboratory at the Medical Research Institute (MRI) for Measles or Rubella IgM testing. The programme has identified the laboratory IgM testing rate as 96.9% and achieved satisfactory levels of monitoring target of >80%. No rubella confirmed cases for the quarter.

### 3. LEPTOSPIROSIS

During the 2<sup>nd</sup> Quarter of 2023, **3276** cases and 69 deaths (CFR 1.8) due to Leptospirosis were notified to the Epidemiology Unit compared to **1974** cases and **57** deaths in the previous quarter and **1536** cases and **25** deaths during the corresponding quarter of 2022.

The age and sex distribution of patients, revealed by the special surveillance data is given in Table 06.

**Table 05: Selected characteristics of Leptospirosis patients (%) – 2nd Quarter 2023**

Age Group	Sex	
	Male	Female
0 – 9 years	3	1
10 – 19 years	134	10
20 – 29 years	317	18
30 – 39 years	312	44
40 – 49 years	439	82
50 – 59 years	328	78
> 60 years	300	72
<b>Total</b>	<b>85.28%</b>	<b>14.16%</b>

### 4. HUMAN RABIES

Eight cases of Human Rabies were reported to the Epidemiology Unit in the 2<sup>nd</sup> quarter, of 2023 compared to three cases in the previous quarter and eight cases in the corresponding quarter of 2022. All seven reported cases were laboratory-confirmed.

### Animal Rabies 2<sup>nd</sup> quarter 2023

During 2<sup>nd</sup> quarter, 46 dogs were reported positive for rabies, compared to 59 in the previous quarter and 89 positives in the same period in the last year.

### Rabies Control Activities – 2<sup>nd</sup> quarter 2022

#### Dog vaccination -

A total of 259929 dogs were vaccinated during the quarter under review compared to 139114 in the previous quarter and 308008 in the corresponding quarter of the last year.

#### Animal Birth control

##### Chemical– Discontinued

**Surgical**– 6666 female dogs were subjected to sterilization by surgical method during the quarter review compared to 1722 in the previous quarter and 5507 in the corresponding quarter of last year.

### 5. VIRAL HEPATITIS

In the 2nd Quarter of 2023, a total of 60 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 78 cases in the previous quarter and 75 cases in the corresponding quarter of 2022. Badulla district (22 cases) reported the highest number of cases followed by Monaragala district (8 cases).

### 6. ENTERIC FEVER

In the 2nd Quarter of 2023, a total of 20 cases of Enteric fever were reported to the Epidemiology Unit, compared to 12 cases in the previous quarter and 24 cases in the corresponding quarter of 2022. The district of Kandy (5 cases) reported the highest number of cases, followed by Jaffna (4 cases).

### 7. DYSENTERY

In the 2nd Quarter of 2023, a total of 286 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 195 cases in the previous quarter and 114 cases in the corresponding quarter of 2022. Batticaloa district (74 cases) and Nuwara Eliya (57 cases) reported the highest number of cases.

**8. MALARIA**

There were no indigenous malaria cases reported during the 2nd quarter of 2023. Sixteen imported malaria cases were reported in the 2nd quarter of 2023.

**9. JAPANESE ENCEPHALITIS (JE)**

During the 2<sup>nd</sup> quarter of 2023, 40 cases of clinically suspected Encephalitis cases were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 31 cases were clinically confirmed by the Public Health Inspectors during their field investigations.

There were no lab-confirmed JE cases during the 2<sup>nd</sup> quarter of 2023. Two lab-confirmed cases were reported during the 1<sup>st</sup> quarter of 2023.

**Table 06**  
**SELECTED CHARACTERISTICS OF CONFIRMED CASES OF JE— 2nd quarter 2023**

Variable	Category	Percentage
	Sex	Male
	Female	01 (50%)
Age group	< 1 y	00 (00%)
	1-10 y	00 (00%)
	11- 20	00 (00%)
	21-50Y	00 (00%)
	> 50 Y	02 (100%)
District	Polonnaruwa	01 (50%)
	Kurunegala	01 (50%)

**Table 07 - Results of Blood smear examination for malaria parasites - 2nd Quarter 2023**

	2nd quarter 2022	2nd quarter 2023
No. of blood smears examined	193,579	192,936
No. of positives	0	11
No. of <i>P. vivax</i>	0	00
No. of <i>P. falciparum</i>	0	8
No. of mixed infections	0	1
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.00	0.00
P.v. : P.f. ratio	0	0.8
Percentage of infant positives	0	0

**Table 08 Distribution of number of blood smears examined by district RMO– 2nd Quarter 2023**

RMO	April	May	June	Total
Ampara	1911	1833	2043	5787
Anuradhapura	3738	3512	3560	10810
Badulla	2364	3015	2451	7830
Batticaloa	4191	5364	4279	13834
Colombo	2086	3405	3878	9369
Embilipitiya	3068	3659	3895	10622
Galle	1733	2047	2035	5815
Gampaha	3512	4702	3333	11547
Hambantota	1835	2321	2871	7027
Jaffna	1871	2560	2220	6651
Kalmune	2476	3572	2637	8685
Kalutara	157	1205	29	1391
Kandy	4379	4833	5662	14874
Kegalle	1383	1792	1875	5050
Kilinochchi	681	871	829	2381
Kurunegala	5466	5902	5738	17106
Maho	1217	1387	1449	4053
Mannar	1090	934	818	2842
Matale	2313	2916	3253	8482
Matara	1765	2007	1995	5590
Moneragala	1988	2215	2624	6827
Mulativu	1588	2007	1995	5590
Nuwara eliya	0	867	986	1853
Polonnaruwa	1411	1710	1564	4685
Puttalam	1746	2780	2558	7084
Trincomalee	1009	1166	850	3025
Vavuniya	835	1641	1322	3798
<b>Sri Lanka</b>	<b>55813</b>	<b>70223</b>	<b>66900</b>	<b>192936</b>

**Table 09****MORBIDITY AND MORTALITY DUE TO DF/DHF – 2ND QUARTER 2023**

Province/RDHS	Cases	%	Deaths	CFR
<b>Western Province</b>	<b>13,761</b>	<b>50.5</b>	<b>8</b>	<b>0.06</b>
Colombo	5902	21.7	3	0.05
Gampaha	5943	21.8	3	0.05
Kalutara	1916	7.0	2	0.1
<b>Central Province</b>	<b>2,730</b>	<b>10.0</b>	<b>4</b>	<b>0.15</b>
Kandy	2188	8.0	4	0.18
Matale	463	1.7	0	0.00
Nuwara Eliya	79	0.3	0	0.00
<b>Southern Province</b>	<b>2,095</b>	<b>7.7</b>	<b>1</b>	<b>0.05</b>
Galle	1010	3.7	1	0.10
Hambantota	602	2.2	0	0.00
Matara	483	1.8	0	0.00
<b>Nothern Province</b>	<b>814</b>	<b>3.0</b>	<b>1</b>	<b>0.12</b>
Jaffna	639	2.3	1	0.16
Kilinochchi	26	0.1	0	0.00
Mannar	39	0.1	0	0.00
Vavuniya	50	0.2	0	0.00
Mulativu	60	0.2	0	0.00
<b>Eastern Province</b>	<b>2,869</b>	<b>10.5</b>	<b>3</b>	<b>0.10</b>
Batticaloa	1204	4.4	0	0.00
Ampara	89	0.3	0	0.00
Trincomalee	1168	4.3	3	0.26
Kalmunai	408	1.5	0	0.00
<b>North-Western Province</b>	<b>1,658</b>	<b>6.1</b>	<b>2</b>	<b>0.12</b>
Kurunegala	1018	3.7	1	0.10
Puttalam	640	2.4	1	0.16
<b>North-Central Province</b>	<b>537</b>	<b>2.0</b>	<b>0</b>	<b>0.00</b>
Anuradhapura	310	1.1	0	0.00
Polonnaruwa	227	0.8	0	0.00
<b>Uva Province</b>	<b>423</b>	<b>1.6</b>	<b>0</b>	<b>0.00</b>
Badulla	242	0.9	0	0.00
Moneragala	181	0.7	0	0.00
<b>Sabaragamuwa Province</b>	<b>2,342</b>	<b>8.6</b>	<b>1</b>	<b>0.04</b>
Ratnapura	1183	4.3	1	0.08
Kegalle	1159	4.3	0	0.00
<b>Total</b>	<b>27,229</b>	<b>100.0</b>	<b>20</b>	<b>0.07</b>

## 10. DENGUE FEVER (D.F.) / DENGUE HAEMORRHAGIC FEVER (D.H.F)

During the 2<sup>nd</sup> quarter of 2023, 27,229 cases of confirmed or clinically suspected DF / DHF were reported from all districts with 20 deaths (CFR 0.07%) when compared to 21,720 cases of DF/DHF with 19 deaths (CFR 0.08%) in the 2<sup>nd</sup> quarter of 2022.

**Table 10. Distribution of DF/DHF cases by month in the 2nd quarter 2023**

Month	Number of Cases	Proportion of cases
April	7617	27.9%
May	9696	35.6%
June	9916	36.4%

The age distribution of DF/DHF cases for the 2<sup>nd</sup> quarter of 2023 are as follows:

**Table 11. Distribution of DF/DHF cases by age in the 2nd quarter 2023**

Quarter 2	<1yr	1-4yr	5-9yr	10-14yr	15-19yr	20-24yr	25-49yr	50-64yr	>=65yr
No of cases	122	1206	1759	2190	3166	3549	10272	3402	1563
%	0.4	4.4	6.5	8.0	11.6	13.0	37.7	12.5	5.7

### **11. Rubella disease and Congenital Rubella Syndrome (CRS):2<sup>nd</sup> Quarter 2023**

During the whole quarter, only 63 suspected Rubella disease cases were reported and 1 of them was compatible with surveillance case definition [fever and maculopapular rash, with arthralgia/arthritis, lymphadenopathy (suboccipital, postauricular and cervical) or conjunctivitis] but none were laboratory confirmed by investigation of rubella IgM.

#### **Congenital Rubella Syndrome (CRS):2nd Quarter 2023**

233 infants underwent TORCH screening. Out of which none were diagnosed as CRS

### **12. CHOLERA**

No confirmed cases of cholera were reported to the Epidemiology Unit during the 2nd Quarter 2023. Last case of cholera was reported in the country in January 2003.

### **13. TETANUS**

In 2023, six patients in the age group of 55-80 years with tetanus were notified and confirmed. Three deaths have been reported among these patients.

No neonatal tetanus cases were reported during 2023 and no tetanus cases were reported during pregnancy.

Three patients with clinically confirmed tetanus were reported in the 2<sup>nd</sup> quarter from Colombo, Ratnapura and Kegalle districts.

#### 14. Surveillance report on AEFI – 2nd quarter 2023

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 2<sup>nd</sup> Quarter of 2023 the reporting has reached 98.3% of completeness of reports, while 73% reports were received in time at the Epidemiology Unit. Gampaha, Kalutara, NIHS, Kandy, Nuwara Eliya, Matale, Galle, Hambantota, Matara, Jaffna, Kilinochchi, Mannar, Vavuniya, Batticaloa, Ampara, Trincomalee, Puttalam, Anuradhapura, Polonnaruwa, Badulla, Moneragalle, Rathnapura, Kegalle and Kalmunai were able to send all reports. The best timeliness was reported from Gampaha and Matale districts (100%) followed by Galle (96.7%), Kandy (91.7 %) and Hambantota (91.7%). (Table 1)

The highest rate (1081.7 per 100,000 immunizations) of AEFI was reported from Batticaloa district, while Batticaloa reported the highest number of 642 AEFI cases in the 2<sup>nd</sup> quarter of 2023.

For the second quarter, the highest number of AEFI (n=1380) was reported against the Pentavalent vaccine, whereas the highest rate of AEFI (1160.5 /100,000 doses administered) was reported against DTP vaccine. The rate of AEFI for Pentavalent (01<sup>st</sup>, 02<sup>nd</sup>& 03<sup>rd</sup> doses) is 762.9 per 100,000 doses administered. High Fever (1605), Nodule (448), and Allergic Reaction (370) are the leading AEFI reported. The highest numbers of fever cases reported were following Pentavalent (931 cases: 514.7 per 100,000 doses administered) and DPT (514 cases: 724.8 per 100,000 doses administered) vaccines. For Nodules, it was largely due to PVV (289 cases: 159.8 per 100,000 doses administered) and DPT (129 cases: 181.9 per 100,000 doses administered). Allergic reactions, it was largely due to MMR (108 cases: 64.3 per 100,000 doses administered) DPT (146.6 cases: per 100,000 doses administered, and PVV (81 cases: 41.7 per 100,000 doses administered).

**Table 12**  
**REPORT ON MONTHLY RETURN OF AEFI BY DISTRICTS**

RDHS	Completeness %	Time-ly Returns %	No. of AEFI	AEFI Rate (100,000 doses)
Colombo	95	58.3	211	203.3
Gampaha	100	100	139	113.4
Kalutara	100	79.5	89	166.5
NIHS	100	66.7	10	45.2
Kandy	100	91.7	214	246.6
Matale	100	100	155	456.9
Nuwara Eliya	100	76.9	64	130.3
Galle	100	96.7	162	237.7
Hambantota	100	91.7	93	231.9
Matara	100	82.4	126	239.8
Jaffna	100	88.1	254	539.9
Kilinochchi	100	33.3	25	217.5
Mannar	100	86.7	7	61.0
Vavuniya	100	75	36	225.8
Mullativu	94.4	72.2	57	541.6
Batticaloa	100	78.6	642	1081.7
Ampara	100	28.6	26	127.0
Trincomalee	100	77.8	53	124.4
Kurunegala	96.6	55.2	153	148.3
Puttalam	100	53.8	54	92.5
Anuradhapura	100	46.4	96	146.7
Polonnaruwa	100	63.0	21	61.9
Badulla	100	81.3	164	294.7
Moneragala	100	39.4	70	179.1
Ratnapura	100	73.3	186	259.4
Kegalle	100	84.8	131	227.5
Kalmunai	100	74.4	58	124.6
<b>Sri Lanka</b>	<b>98.3</b>	<b>73.0</b>	<b>3296</b>	<b>236.1</b>



Table 13 : Number of Selected Adverse Events by Vaccines – 2nd Quarter 2023

	BCG	OPV	IPV	PVV*	DPT	MMR	LJE	DT	TT	HPV	aTd	Total number of AEFI reported
<b>Total Number of AEFI Reported</b>	9	14	10	1380	823	172	77	108	8	1	5	<b>2607</b>
<b>AEFI reporting rate/100,000 doses administered</b>	6.2	4.2	8.7	762.9	1160.5	102.4	99.9	137.6	10.5	1.8	4.8	
<b>High Fever (&gt;39°C)</b>	3	8	3	931	514	55	50	48	2	0	1	<b>1605</b>
<b>Reporting rate/100,000 doses administered</b>	2.1	2.4	2.6	514.7	724.8	32.7	64.9	61.2	2.6	0.0	0.9	
<b>Allergic reactions</b>	0	3	5	81	104	108	21	39	5	1	3	<b>370</b>
<b>Reporting rate/100,000 doses administered</b>	0.0	0.9	4.3	44.7	146.6	64.3	27.2	49.7	6.6	1.8	2.9	
<b>Severe local reactions</b>	0	0	0	8	4	0	0	1	0	0	0	<b>13</b>
<b>Reporting rate/100,000 doses administered</b>	0.0	0.0	0.0	4.4	5.6	0.0	0.0	1.3	0.0	0.0	0.0	
<b>Seizure (Febrile/Afebrile)</b>	0	0	0	41	64	9	5	0	0	0	0	<b>119</b>
<b>Reporting rate/100,000 doses administered</b>	0.0	0.0	0.0	22.7	90.2	5.3	6.5	0.0	0.0	0.0	0.0	
<b>Nodules</b>	3	3	2	289	129	0	1	19	1	0	1	<b>448</b>
<b>Reporting rate/100,000 doses administered</b>	2.1	0.9	1.7	159.8	181.9	0.0	1.3	24.2	1.3	0.0	0.9	
<b>Injection site abscess</b>	3	0	0	29	7	0	0	0	0	0	0	<b>39</b>
<b>Reporting rate/100,000 doses administered</b>	2.1	0.0	0.0	16.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	
<b>HHE</b>	0	0	0	1	1	0	0	1	0	0	0	<b>3</b>
<b>Reporting rate/100,000 doses administered</b>	0.0	0.0	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	

Note: \*PVV-Pentavalent vaccine \*\*Total given only for eleven vaccines listed in the table

## 15. TUBERCULOSIS

A total of **2561** TB patients were notified to the NPTCCD by H816A (TB Notification Form) for the 2<sup>nd</sup> quarter of 2023, while 2426 patients were registered at chest clinics during the same quarter according to the quarterly report on case findings (TB 08). Out of these **2229** TB patients (91.9%) were new TB cases, 196 (8.1%) were retreatment cases and there were no cases identified for previous treatment history unknown category. (Please refer to Annex 1) Out of new TB cases, **1193** (53.5%) were bacteriologically confirmed TB, **444** (19.9%) were clinically diagnosed (sputum negative) TB and 592 (26.6%) were new extrapulmonary TB cases. Out of these **retreatment cases, 128** (65.3 %) patients **relapsed**, 24 (12.2%) patients were **treated after failure**, **22** (11.2%) patients were **lost to follow** and **22** (11.2%) patients were **previously treated**. A total of 2274 TB patients were screened for HIV; out of them, **06** patients were **positive** for HIV. There were 07 patients with known positive HIV status at the time of TB diagnosis. A total of 13 patients were TB/HIV co-infection. **6** Multidrug-resistant TB patients were detected during the above quarter. The distribution of TB patients by RDHS divisions is given in the table. annexed.

**Table 14: TUBERCULOSIS PATIENTS BY RDHS DIVISIONS –2nd quarter 2023**

RDHS DIVISION	New				Retreatment & other	Total
	PTB	PTB	EPTB	Total		
Colombo	349	74	136	559	64	623
Gampaha	134	73	59	266	35	302
Kalutara	76	36	35	149	14	163
Kandy	56	37	39	132	6	138
Matale	20	9	10	39	1	40
Nuwara Eliya	27	15	33	75	7	82
Galle	64	41	32	137	9	146
Matara	26	4	18	48	2	50
Hambantota	16	10	12	38	2	40
Jaffna	22	11	19	52	8	60
Vavuniya	12	2	1	15	1	16
Batticaloa	20	6	11	37	0	37
Ampara	6	2	1	9	1	10
Kalmunai	30	8	7	45	4	49
Trincomalee	26	9	7	42	2	44
Kurunegala	65	40	30	135	2	137
Puttalam	17	2	20	39	5	44
Anuradhapura	45	21	21	87	5	92
Polonnaruwa	16	8	9	33	7	40
Badulla	23	8	17	48	6	54
Monaragala	22	1	11	34	1	35
Rathnapura	62	18	32	112	6	118
Kegalle	50	7	28	85	8	93
Mannar	0	0	0	0	0	0
Mulathivu	5	0	3	8	0	8
Kilinochchi	4	0	1	5	0	15
<b>Total</b>	<b>1193</b>	<b>444</b>	<b>592</b>	<b>2229</b>	<b>196</b>	<b>2426</b>

PTB-Pulmonary Tuberculosis

EPTB- Extra Pulmonary Tuberculosis

SP + ve - Sputum Positive

SP - ve - Sputum Negative

Data from Central TB Register

## 16. SURVEILLANCE AT SEA PORT

Details of the vaccinations carried out by the Assistant Port Health Office during the 3<sup>rd</sup> quarter 2023, is as follows;

**Table 15:**

	Vaccine	Total
A.	Yellow fever	1308
B.	Meningococcal meningitis	04
C.	Oral polio	84

## 17. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 3<sup>rd</sup> Quarter 2023 is given below.

**Table 16:**

<b>Emerging and reemerging disease (Ebola/MERS CoV/ SARS.... Etc)</b>	
<b>Ebola</b>	
No. of passengers screened	00
<b>No. of suspected cases transferred</b>	00
<b>Zika</b>	
No. of passengers screened	00
<b>No. of suspected cases transferred</b>	00
<b>Malaria</b>	
<b>No. of passengers visited to Health office</b>	15
No. of passengers drug issued	0
No. of blood films done (R.D.T.)	12
Referred to I.D.H./Other unit	0
<b>Yellow Fever</b>	
No. of yellow fever cards inspected	300
No. Invalid/without Yellow Fever cards	11
Referred to I.D.H/Other units	00

## 19. SEXUALLY TRANSMITTED DISEASES

Table 18: NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA 2nd-Quarter 2023

Disease		New cases or new disease episodes during the quarter			Total new cases or new episodes for the calendar year up to end of the quarter **		
		Male	Female	Total	Male	Female	Total
HIV positives <sup>1</sup>		162	18	180	198	38	345
	Early Syphilis <sup>2</sup>	81	17	98	146	31	177
Syphilis	Late Syphilis <sup>3</sup>	128	52	180	275	127	402
	Congenital Syphilis <sup>4</sup>	1	1	2	2	1	3
Gonorrhoea <sup>5</sup>		192	41	233	414	105	519
Ophthalmia Neonatorum <sup>6</sup>		0	0	0	0	9	0
Non specific cervicitis/urethritis		249	523	772	474	1,074	1,548
Chlamydial infection		4	0	4	5	0	5
Genital Herpes		294	447	741	603	851	1,454
Genital Warts		342	247	589	675	535	1,210
Pelvic Inflammatory dis.			17	17	0	44	44
Trichomoniasis		1	7	8	2	16	18
Candidiasis		313	494	807	761	971	1,732
Bacterial Vaginosis			367	367	0	744	744
Other sexually transmitted diseases <sup>7</sup>		115	22	137	223	73	296
Non venereal		2,083	877	2,,960	4,221	1,783	6,004

Source: NSACP

\*Central STD clinic Colombo and peripheral STD clinics of National STD/AIDS Control Programme of Sri Lanka

# Includes adjustments for revised diagnosis , reporting delays or any other amendments

1-Includes AIDS cases

2-Diagnosed within 2years of infection and considered to be infectious.

3-Diagnosed after 2 years of infection and considered to be non-infectious

4-Includes both early and late cases

5-Includes presumptive Gonorrhoea

6-Includes both gonococcal and chlamydial conjunctivitis in neonatal period

7-Includes Lympho granuloma venerium, Granuloma inguinalae, Molluscum contagiosum, Scabis,Tinea, Hepatitis- B etc

8-.Number of STD clinic attendees who were not having sexually transmitted diseases

## 18. LEPROSY

TABLE 17: QUARTERLY RETURN OF LEPROSY STATISTICS - 2ND QUARTER 2023

## 1. National

	At the end of the quarter			Cumulative for end of the quarter		
	2nd quarter 2023	2nd quarter 2023	Diff (%)	2023	2022	Diff (%)
New patients detected	361	303	+19.14	744	658	+13.07
Children	32	38	-15.79	74	72	+2.78
Grade 2 Deformities	22	25	-12.00	47	54	-12.96
Multi-Bacillary	247	195	+26.66	505	424	+19.10
Females	128	120	+6.66	289	263	+9.88

## 2. Districts

	New patients	G2-Deformity	Children	MB	Females
<b>Central</b>	<b>16</b>	<b>0</b>	<b>2</b>	<b>12</b>	<b>4</b>
Kandy	7	0	0	7	1
Matale	5	0	2	4	3
NuwaraEliya	4	0	0	1	0
<b>Eastern</b>	<b>44</b>	<b>2</b>	<b>3</b>	<b>29</b>	<b>22</b>
Ampara	5	0	0	4	2
Batticaloa	24	1	3	19	13
Kalmunai	6	1	0	3	3
Trincomalee	9	0	0	3	4
<b>Northern</b>	<b>15</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>4</b>
Jaffna	6	0	0	4	2
Kilinochchi	2	0	0	2	0
Mannar	3	0	0	0	0
Vavuniya	2	0	1	1	0
Mullaitivu	2	1	0	2	2
<b>North Central</b>	<b>21</b>	<b>2</b>	<b>4</b>	<b>11</b>	<b>7</b>
Anuradhapura	18	1	4	8	6
Pollonnaruwa	3	1	0	3	1
<b>North Western</b>	<b>36</b>	<b>3</b>	<b>4</b>	<b>29</b>	<b>13</b>
Kurunegala	17	3	1	12	7
Puttalam	19	0	3	17	6
<b>Sabaragamuwa</b>	<b>26</b>	<b>2</b>	<b>2</b>	<b>24</b>	<b>4</b>
Kegalle	5	0	0	5	3
Rathnapura	21	2	2	19	1
<b>Southern</b>	<b>51</b>	<b>4</b>	<b>2</b>	<b>34</b>	<b>13</b>
Galle	17	2	0	12	4
Hambanthota	14	0	0	6	1
Matara	20	2	2	16	8
<b>Uva</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>4</b>
Baddulla	5	0	0	5	4
Monaragala	5	0	0	5	0
<b>Western</b>	<b>142</b>	<b>8</b>	<b>14</b>	<b>89</b>	<b>57</b>
Colombo	58	2	6	41	26
CMC	19	2	1	11	8
Gampaha	39	3	7	21	12
Kalutara	26	1	0	16	11
<b>Sri Lanka</b>	<b>361</b>	<b>22</b>	<b>32</b>	<b>247</b>	<b>128</b>

## 20. BACTERIOLOGY REPORT, MEDICAL RESEARCH INSTITUTE

**Table 19: Bacteriological report, MRI 2nd Quarter 2023**

	Apr	May	Jun
<b>(A) CHOLERA</b>			
No. of stool specimens Examined	02	08	01
No. of positives El. Tor <i>Cholera</i>	0	0	0
<i>Ogawa</i>	0	0	0
<i>Inaba</i>	0	0	0
<i>Cholera</i> o139	0	0	0
<b>(B) SALMONELLA</b>			
Blood– No. Examined	0	0	0
<i>S.typhi</i>	0	0	0
<i>S.paratyphi A</i>	0	0	0
Stools—No. examined	47	29	24
<i>S.typhi</i>	0	0	0
<i>S.paratyphi A</i>	0	0	0
Others	0	0	01
<b>(C) SHIGELLA</b>			
No. Examined	47	29	24
<i>S.flexneri</i> I	0	0	0
<i>S.flexneri</i> ii	0	0	0
<i>S.flexneri</i> iii	0	0	0
<i>S.flexneri</i> iv	0	0	0
<i>S.flexneri</i> v	0	0	0
<i>S.flexneri</i> vi	0	0	0
<i>S.Sonnei</i>	0	0	0
<i>S.dysenteriae</i>	0	0	0
<b>(D) ENTEROPATHOGENIC E.COLI</b>			
No.Examined	02	02	02
No. positive	0	0	01
<b>(E) CAMPYLOBACTER</b>			
No.Examined	47	29	24
No. Positive	0	1	0
<b>(F) Special</b>			

## 21. SURVEILLANCE OF MENINGITIS—2nd quarter 2023

Meningitis has been a notifiable disease in Sri Lanka since 2005. During the 2<sup>nd</sup> quarter of 2023, 471 suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system.

Out of this 231 cases were clinically confirmed by the Public Health Inspectors during their field investigations. The highest number of meningitis cases were reported from the Ratnapura district (n=36) followed by Kurunegala (n=32) and Kalutara (n=16) districts.

Fifty-three per cent (n=123) of the clinically confirmed meningitis cases belonged to the age group less than one year, another 8% (n=19) belonged to the age group 1- <5 years and 13% (n=30) belonged to the age group 5 – <15 years. Sixty-six per cent of the clinically confirmed cases were males and 34% were females.

**Table 20.**

**Summary findings for special investigations carried out for clinically confirmed cases of Meningitis from 1<sup>st</sup> April to 30<sup>th</sup> June 2023**

<b>CSF Culture Report</b>		
<b>CSF Culture</b>	<b>Number</b>	<b>(%)</b>
CSF Reports available	114	49.3%
No Growth	(101)	
Streptococcus Spp.	(02)	
Staphylococcus	(02)	
Coliform	(01)	
Culture results not known	112	48.5%
Not done	05	2.2%
Total	231	100%
<b>Final outcome of the patient</b>		
<b>Outcome</b>	<b>Number</b>	<b>(%)</b>
Cured	198	85%
Died	07	1.2%
Information not available	05	13.8%
Total	302	100%
<b>Final Diagnosis (based on clinical and lab findings)</b>		
<b>Diagnosis</b>	<b>Number</b>	<b>(%)</b>
Culture confirmed	10	4.3%
Probable bacterial meningitis	44	19%
Probable viral meningitis	66	28.5%
Suspected Meningitis	111	48%
Total	231	100%

**22. INFLUENZA SURVEILLANCE - 2nd quarter 2023****Human Influenza surveillance**

Surveillance of human influenza is carried out under two main components; Influenza-like illness (ILI) surveillance and Severe Acute Respiratory Infections (SARI) surveillance. As for the ILI surveillance, epidemiological data and respiratory samples are collected from 19 sentinel hospitals throughout the country (GH Ampara, TH Karapitiya, GH Matara, LRH, NIID, NHSL, TH Kalubowila, TH Peradeniya, TH Ratnapura, TH Kurunegala, GH Vavunia, GH Nuwara Eliya, GH Badulla, TH Anuradhapura, GH Polonnaruwa, TH Ragama, GH Chilaw, TH Batticaloa, TH Jaffna). Under SARI surveillance epidemiological data and respiratory samples are collected from four sentinel hospitals (GH Matara, TH Peradeniya, TH Ragama and LRH). These respiratory samples are tested and analyzed at the National Influenza Centre (NIC), and Medical Research Institute (MRI). The Influenza testing facility is also available at TH Kandy, TH Karapitiya, and TH Anuradhapura.

**Epidemiological Component****ILI Surveillance**

In the 2<sup>st</sup> quarter of the year 2023, 17 sentinel sites (GH Ampara, TH Karapitiya, GH Matara, LRH, NIID, NHSL, TH Peradeniya, TH Ratnapura, GH Vavuniya, GH Nuwara Eliya, GH Badulla, TH Anuradhapura, GH Polonnaruwa, TH Ragama, GH Chilaw, TH Batticaloa and TH Jaffna) reported ILI data with a reporting rate of 89.5%. A total of 63,989 ILI cases were reported, accounting for 7.9 % of all OPD visits (n=812,619). During the second quarter, the highest number of ILI cases were reported from TH Anuradhapura (n=12,095, 18.9%) and most of the patients were in the age group 15 — 49 years (n=25,065, 39.2%). For the 2<sup>nd</sup> quarter, the highest proportion of infant ILI patients (n=1356, 56.4%) was reported from TH Anuradhapura.

**SARI Surveillance**

A total of 1644 SARI cases were reported for the 2<sup>nd</sup> quarter of 2023 from four sentinel hospitals. Out of 31,128 of admissions during the 2<sup>nd</sup> quarter, to the medical and pediatrics wards in the relevant hospitals, 5.3 % were due to SARI. The highest number of SARI cases was reported from LRH (n=602, 36.6 %).

**Laboratory Component**

A total of 796 respiratory samples were received at the MRI, TH Kandy, TH Karapitiya and TH Anuradhapura during the 2<sup>nd</sup> quarter of 2023. The months of April, May and June received 240, 324 and 232 samples respectively. 139 samples were positive for influenza A and 40 were positive for Influenza B during the 2<sup>nd</sup> quarter of 2023. Therefore, influenza A was the predominant circulating Influenza viral strain identified.

**Table 21: TYPES OF INFLUENZA VIRUSES ISOLATED IN ALL SAMPLES FOR THE 2nd QUARTER OF THE YEAR 2023**

Month	Total tested	Total positives	Influenza A	A (H1N1)	A (H3N2)	Not typed	Influenza B
April	240	48	41	28	13	0	7
May	324	86	67	30	37	0	19
June	232	45	31	12	18	1	14
<b>Total</b>	<b>796</b>	<b>179</b>	<b>139</b>	<b>70</b>	<b>68</b>	<b>1</b>	<b>40</b>

*(Source: NIC/MRI, TH Kandy, TH Karapitiya, TH Anuradhapura)*

The total positive rate for influenza A was 17.4% and was the predominant strain identified for the 2<sup>nd</sup> quarter of

### **Bird Influenza Surveillance**

Sri Lanka has been recognized as carrying a high risk for Avian Influenza (AI) making bird influenza surveillance an important component of the influenza surveillance system. This high risk is mainly due to its location in the South East Asian Region. The country's poultry industry with a significant proportion of people engaged in backyard poultry and the commercial level poultry industry adds to this risk. Also, the country being a hotspot for migratory birds, attracting over two hundred species of migratory birds annually in two migratory seasons, is another risk factor that makes bird influenza surveillance necessary. Bird surveillance is conducted by the Department of Animal Production and Health (DAPH) with serum samples collected from poultry farms every month and faecal samples collected from migratory bird hotspots during the two migratory seasons, where fifteen faecal samples are collected from each birding hotspot, pooled in bottles with five samples in each and analyzed at the virology laboratory at Polgolla.

**Table 22: Animal samples collected by month and district for the 2nd quarter of the year 2023**

Month	Pool samples for embryonated chicken egg passage	District samples collected from	Serum Samples for ELISA	District samples collected from
April	1890	Kegalle, Kilinochchi, Kundasale, Mullaitivu, Vavuniya, Wariyapola, Welisara, Ratnapura, VRI/CVIC, AQM, AQK, AQC	391	Badulla, Homagama, Kalutara, Kegalle, Kilinochchi, Mullaitivu, Vavuniya, Wariyapola, Welisara, Ratnapura, AQK
May	4597	Ampara, Anuradhapura, Badulla, Batticaloa, Chilaw, Dambulla, Homagama, Kegalle, Kundasale, Welisara, Ratnapura, AQK, AQC	655	Anuradhapura, Dambulla, Galle, Kegalle, Pannala, Wariyapola, Welisara, Rathnapura, AQK
June	4521	Ampara, Anuradhapura, Batticaloa, Chilaw, Dambulla, Homagama, Kegalle, Kilinochchi, Kundasale, Pannala, Polonnaruwa, Vavuniya, Wariyapola, Welisara, Ratnapura, AQK, AQC, VRI/CVIC	680	Ampara, Batticaloa, Dambulla, Homagama, Kegalle, Kilinochchi, Mullaitive, Pannala, Polonnaruwa, Wariyapola, Welisara, Ratnapura, AQK, AQC, VRI/CVIC
<b>Total</b>	<b>3159</b>		<b>2189</b>	

\* VRI Veterinary Research Institute, CVIC Central Veterinary Investigation Centre AQM — Animal Quarantine office Matthala, AQK Animal Quarantine office Katunayaka, AQC — Animal Quarantine office Colombo

**(Source: Department of Animal Production and Health)**

All samples were negative for AI virus isolation for the 2nd quarter of 2023.

### 23. SPECIAL REPORT –

#### SURVEILLANCE OF CHICKENPOX

Of the 1270 notified Chickenpox cases, 1210 (95.3%) were confirmed for the 2<sup>nd</sup> quarter, of 2023. The highest district reporting was Kegalle (135) followed by Kalutara (112), Kurunegala (110) Galle (86) and Matara (84). June was the highest month reporting (436) in the 2<sup>nd</sup> quarter. According to the case-based investigation, the maximum presentation of cases was 21 - 40 years of age (50.6%) and male (52.3%). The majority (81.5%) was found as no complications. Secondary bacterial infection 11 cases, Myocarditis 3 cases and Pneumonia 3 cases were found as complications.

#### SURVEILLANCE OF MUMPS

Of the 49 notified Mumps cases, 36 (73.5%) were confirmed for the 2<sup>nd</sup> quarter of 2023. The districts reporting Kandy (9), Anuradhapura (5), Polonnaruwa (4) and Ratnapura (4). June (20) was the month reporting in the 2<sup>nd</sup> quarter. According to the case-based investigation, the maximum presentation of cases was 21 - 40 years of age (37.9%) and male (58.6%). The majority (72.4%) was found as no complications.



**SURVEILLANCE OF WHOOPING COUGH**

Of the 49 notified Mumps cases, 36 (73.5%) were confirmed for the 2<sup>nd</sup> quarter of 2023. The districts reporting Kandy (9), Anuradhapura (5), Polonnaruwa (4) and Ratnapura (4). June (20) was the month reporting in the 2<sup>nd</sup> quarter. According to the case-based investigation, the maximum presentation of cases was 21 - 40 years of age (37.9%) and male (58.6%). The majority (72.4%) was found as no complications.

**SURVEILLANCE OF LEISHMANIASIS**

Of 1968 examined suspected Leishmaniasis patients, 989 (50.3%) were confirmed for the 2nd quarter of 2023. The highest district reporting was Kurunegala (199) followed by Anuradhapura (150) Hambantota (131) Matara (106) and Matale (72). May was the highest month reporting (372) in the 2nd quarter.

## 24. SUMMARY OF NOTIFIABLE DISEASES

Table 23– 2nd quarter 2023

Health Region	Dysentery	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Conjunctivitis	Tetanus	Typhus Fever	Viral Hepatitis	Whooping Cough	Dengue Fever / DHF	Tuberculosis	Chickenpox	Mumps	Menigitis	Leishmaniasis
Colombo	4	2	0	1	0	117	9	0	1	0	1	0	4922	579	81	1	16	1
Gampaha	3	4	2	1	0	201	0	1	0	5	3	0	5196	103	73	2	13	16
Kalutara	6	0	0	2	0	331	0	0	0	0	3	0	1856	190	136	3	26	0
Kandy	13	0	5	2	0	111	3	0	0	14	2	0	2459	151	58	10	10	7
Matale	1	0	0	6	0	75	1	0	0	7	1	0	495	43	13	2	2	87
Nuwara-Eliya	59	2	3	31	0	44	2	3	0	24	4	0	86	71	36	1	4	1
Galle	18	5	5	10	1	336	1	0	0	6	1	0	872	175	86	2	8	1
Hambantota	5	3	1	4	0	132	0	0	0	16	0	0	683	44	51	1	9	195
Matara	12	4	1	8	2	207	0	2	0	9	0	0	569	15	84	2	7	65
Jaffna	24	0	4	8	0	4	3	3	0	77	1	0	652	60	34	3	6	0
Kilinochchi	3	0	0	16	0	1	0	0	0	2	0	0	25	6	8	0	0	0
Mannar	1	0	0	0	0	12	0	0	0	1	0	0	39	12	0	0	5	0
Vavuniya	0	0	0	0	0	9	0	2	0	1	0	0	58	18	6	1	2	5
Mullaitivu	1	0	1	5	0	12	0	0	0	2	1	0	65	7	7	0	0	4
Batticaloa	76	0	2	11	1	42	1	0	0	0	4	0	1158	43	23	1	12	1
Ampara	4	0	1	0	0	76	0	0	0	0	0	0	111	13	25	0	19	1
Trincomalee	10	0	0	13	0	35	0	0	0	4	0	0	1192	34	18	0	16	0
Kurunegala	13	1	0	4	1	164	1	1	0	2	4	0	1161	135	110	2	45	159
Puttalam	4	0	1	1	0	26	0	1	0	1	0	0	600	40	30	0	18	8
Anuradhapura	3	0	0	1	0	103	0	4	0	5	1	0	370	47	64	5	21	154
Polonnaruwa	5	2	0	0	0	80	3	0	0	0	5	0	222	23	22	4	4	116
Badulla	11	0	0	21	0	117	0	0	0	13	24	0	261	58	50	2	18	13
Moneragala	7	3	0	0	0	256	0	0	0	11	9	0	255	32	27	3	16	47
Ratnapura	18	5	1	6	1	444	2	0	1	4	6	1	785	126	63	4	44	55
Kegalle	8	1	2	4	0	317	0	0	1	10	1	0	1142	98	135	2	19	7
Kalmunai	26	8	0	0	0	24	3	0	0	1	0	0	442	30	30	0	12	0
<b>Total</b>	<b>335</b>	<b>40</b>	<b>29</b>	<b>155</b>	<b>6</b>	<b>3276</b>	<b>29</b>	<b>17</b>	<b>3</b>	<b>215</b>	<b>71</b>	<b>1</b>	<b>25676</b>	<b>2153</b>	<b>1270</b>	<b>51</b>	<b>352</b>	<b>943</b>

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Figures given may be subject to revision.

The editor welcomes accounts of interesting cases, outbreaks or other public health problems of current interest to health officials.

Such reports should be addressed to:

The Editor, Quarterly Epidemiological Bulletin

### ON STATE SERVICE

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